

(19)

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 174 376 A2

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
23.01.2002 Bulletin 2002/04

(51) Int Cl.7: B65H 16/00

(21) Application number: 01306160.1

(22) Date of filing: 18.07.2001

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 19.07.2000 JP 2000218777

(71) Applicant: Strapack Corporation
Tokyo 105-0021 (JP)

(72) Inventors:
• Shibasaki, Tokio, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)

- Aizawa, Yosikatsu, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)
- Meguro, Tadashi, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)
- Enda, Kenichi, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)

(74) Representative: Piésold, Alexander J.
Frank B. Dehn & Co., European Patent Attorneys,
179 Queen Victoria Street
London EC4V 4EL (GB)

(54) A band feeding device

(57) The present invention provides a band feeding device 32 to dispense a band D. The band feeding device has a touch roller 22 with a plurality of detecting portions 24 provided at regular intervals on a side surface thereof. The touch roller is opposed to a band feeding rotating roller 20 and thereby constitutes a band feeding means. The band feeding device is also provided with a sensor 25 for detecting the detecting portions. In use, a length of the band is led from a band reel 28 through a driving operation of the band feeding means for winding onto an object w;W to be packed. When the length of the band led from the band reel for winding onto the object to be packed is insufficient, a further length of the band corresponding to the shortage is led from the band reel through a manual operation. The detecting portions of the touch roller thus moved through the manual operation are detected by the sensor and a result of the detection is supplied to a control section 29, and the length of the band required for subsequent band feeding through the driving operation is thereby automatically adjusted.

Fig. 2

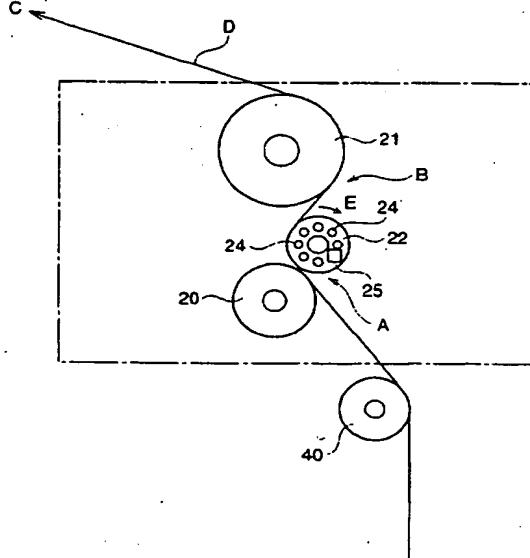
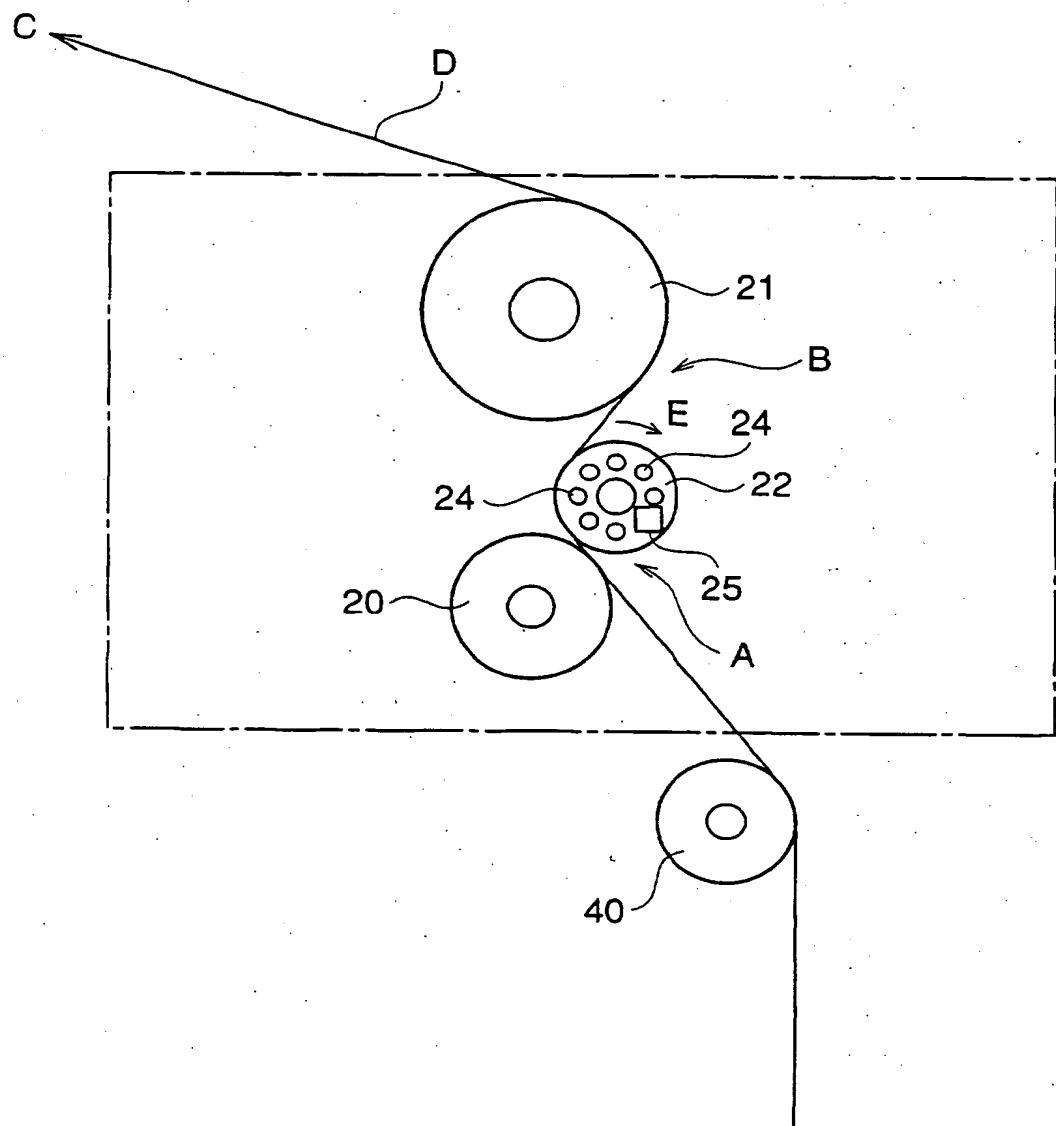


Fig. 2



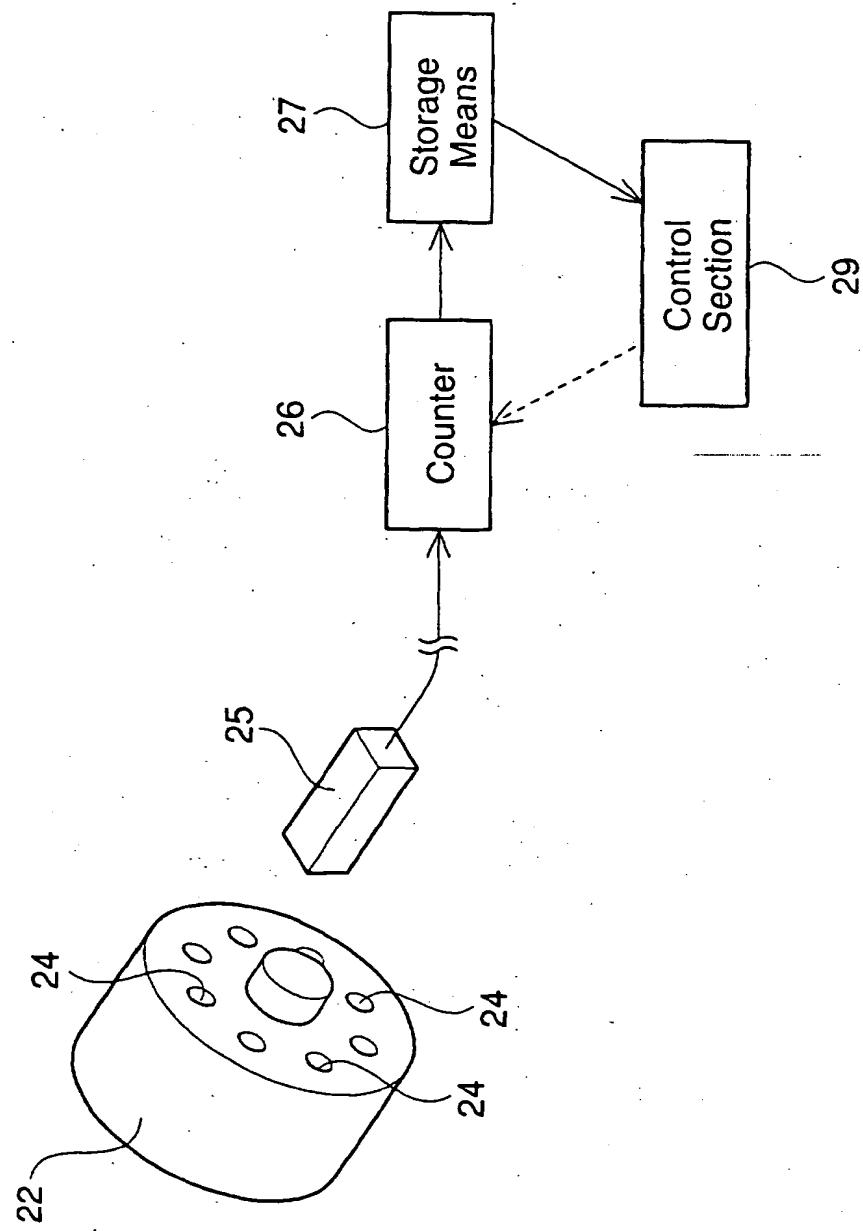


Fig. 3

Fig. 4

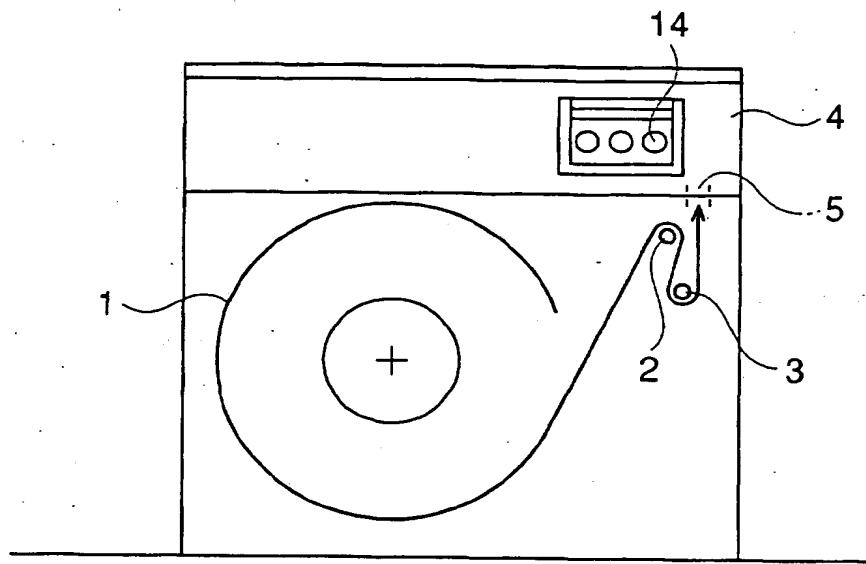


Fig. 5

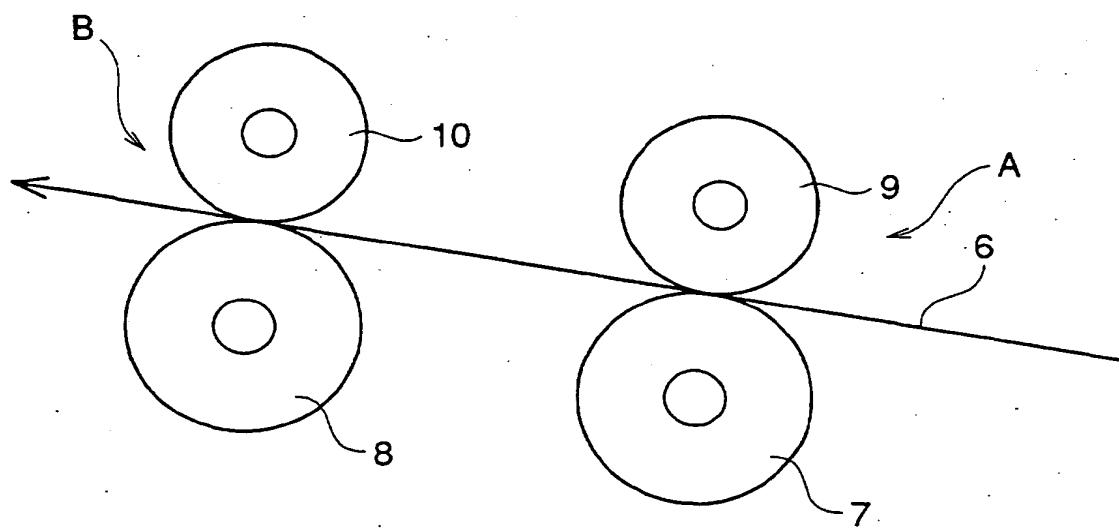
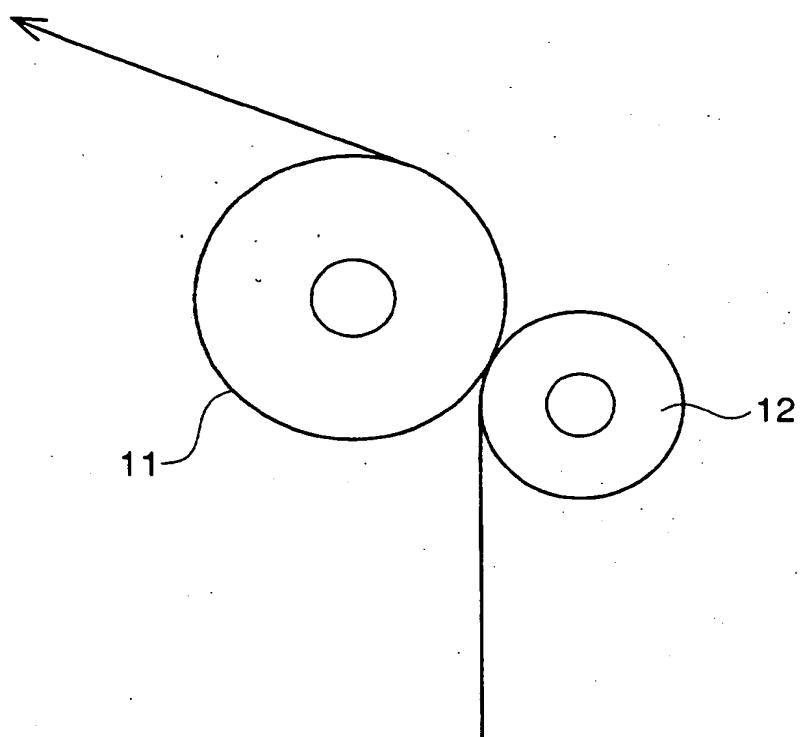


Fig. 6



(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 174 376 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
23.07.2003 Bulletin 2003/30

(51) Int Cl.7: B65H 16/00, B65H 16/02

(43) Date of publication A2:
23.01.2002 Bulletin 2002/04

(21) Application number: 01306160.1

(22) Date of filing: 18.07.2001

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 19.07.2000 JP 2000218777

(71) Applicant: Strapack Corporation
Tokyo 105-0021 (JP)

(72) Inventors:

- Shibasaki, Tokio, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)

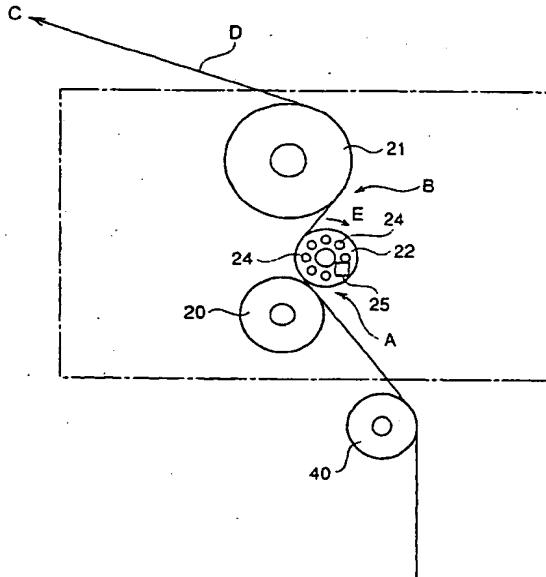
- Aizawa, Yosikatsu, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)
- Meguro, Tadashi, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)
- Enda, Kenichi, c/o Strapack Corporation
Kawasaki-shi, Kanagawa (JP)

(74) Representative: Piésold, Alexander J.
Frank B. Dehn & Co.,
European Patent Attorneys,
179 Queen Victoria Street
London EC4V 4EL (GB)

(54) A band feeding device

(57) The present invention provides a band feeding device 32 to dispense a band D. The band feeding device has a touch roller 22 with a plurality of detecting portions 24 provided at regular intervals on a side surface thereof. The touch roller is opposed to a band feeding rotating roller 20 and thereby constitutes a band feeding means. The band feeding device is also provided with a sensor 25 for detecting the detecting portions. In use, a length of the band is led from a band reel 28 through a driving operation of the band feeding means for winding onto an object w/W to be packed. When the length of the band led from the band reel for winding onto the object to be packed is insufficient, a further length of the band corresponding to the shortage is led from the band reel through a manual operation. The detecting portions of the touch roller thus moved through the manual operation are detected by the sensor and a result of the detection is supplied to a control section 29, and the length of the band required for subsequent band feeding through the driving operation is thereby automatically adjusted.

Fig. 2





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 30 6160

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<p>PATENT ABSTRACTS OF JAPAN vol. 1995, no. 05, 30 June 1995 (1995-06-30) -& JP 07 040919 A (KIORITZ CORP), 10 February 1995 (1995-02-10) * abstract; figures 7,8 *</p> <p>-----</p>	1-4	<p>B65H16/00 B65H16/02</p>
			<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>B65H B65B</p>
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	28 May 2003	Janssens, G	
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons B : member of the same patent family, corresponding document</p>			

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 01 30 6160

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-05-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 07040919	A 10-02-1995	NONE	

EPO FORM P059

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82